

Ryšek, J.

"The acidities of some mineral acids in acetic acid; the acidity function  
 $(H\alpha)_1$ . In English."

p. 1 (Journal on chemistry and biochemistry - Czechoslovak Academy of Science)  
Vol. 22, No. 1, February 1957

SD: Monthly Index of East European Accession (ESAI) LJ, Vol. 7, N<sup>o</sup>. 5, May 1953

1958, p. 1117-18.

"Oxidations with chromium (VI) oxice. VII. Mechanism of oxidation of secondary alcohols." (In English)

CHEMICAL COMMUNICATIONS, Prague, Czechoslovakia,  
Vol. 23, no. 11, Nov. 1958

Bimonthly List of Most Significant Publications (BIMI), LC, Vol. 8, No. 7, July 1959, Unclass.

ROCER, J.

"Oxidation with chromium oxide. V. Oxidation of cyclohexane and n-heptane."  
p. 459

Vol. 51, No. 3 March 1957 (Czechoslovak Academy of Science)

SJ: Monthly Index of East European Accession (EIAI) LC, Vol. 2, No. 5 May 1959

Roeck, Jan

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V. Oxidations with chromium(VI) oxide. VI. Mechanism of oxidation of tertiary alcohols and their esters. Jan Roeck (Czech. Acad. Sci., Prague). Chem. Listy 51, 1835-1840 (1957); cf. C.A. 51, 10388z. 1-Methylcyclohexanol (I), 1-phenylcyclohexanol, and 1-methylcyclohexylacetate are oxidized with CrO<sub>3</sub> in 85-100% AcOH in the presence of 0.02-2.0M H<sub>2</sub>SO<sub>4</sub> or HClO<sub>4</sub>, at a rate which is proportional to the concn. of the oxidized compd. and is independent on the concn. of CrO<sub>3</sub>. The velocity consts. of the 1st order rise much faster than the concn. of the mineral acid and are in proportion to the acidity function ( $\text{H}_\alpha$ ) (cf. C.A. 50, 10489; 51, 17356a). These facts are explained by a mechanism based on a fast reversible protonization of the alc. or ester followed by the velocity-detg. cleavage of a mol. of H<sub>2</sub>O or AcOH giving rise to a 1-methylcyclohexyl carbonium ion which is converted in fast reaction to an olefin. The olefin is then quickly oxidized by CrO<sub>3</sub>. The mechanism received confirmation by the finding that olefins are oxidized by orders faster than the corresponding tertiary ales. or esters and that the velocities of dehydration or elimination of AcOH giving rise to the olefin are approx. the same as the oxidation velocity. The identity and the equimolar ratio of the products arising by the oxidation of the studied compds. and the corresponding olefins was proved indirectly by the same course of CrO<sub>3</sub> consumption in the dependence on time. Oxidizing 5 g. methylcyclohexane with 10 g. CrO<sub>3</sub> in 100 ml. 100% AcOH gave 0.47 g. I. L. J. Urbánek

2. ~~1953, U.S.A.~~
3. ~~1953 (U.S.)~~
4. ~~Population - 1953 - Lop Nur District~~
5. ~~Improving oil well yields - Soviet Union~~
6. ~~1953, U.S.A.~~
7. ~~Improving oil well yields - Soviet Union~~
8. ~~1953, U.S.A.~~
9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

ROCHEV, P. A.

Nizhne-Pechora District - Dairying

Increasing the milk yield of cows in the district of the Pechora River. Sots. zhiv. 15,  
No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

ROCHKINA, O.P.

Cygerol. Med.prom.SSSR 12 no.5:49 My '58.  
(CYCLOHEXANEACETIC ACID)

(MIRA 11:5)

ROCHKO, V.; SOSKIN, A., red.

[Way to plenty] Kurs na izobilie. Moakva, Gospolitizdat, 1960.  
1 v. (MIRA 13:5)  
(Russia--Economic policy)

BELYAYEVA, Z.; BUDARIN, V.; VASHEVSEVA, Ye.; KOPTEV, M.; KOROLEV, S.;  
MESHCHERYAKOV, V.; SEMIN, S.; KONAKOV, D., otv.red.; ROCHKO, V.,  
red.; SOSKIN, A., red.

[Political economy; a manual of visual aids] Politicheskaya  
ekonomika; nagliadnoe posobie. Otvetstvennyi red. D.Konakov.  
Moskva, Gos.izd-vo polit.lit-ry, 1959. 159 p. (MIRA 13:3)  
(Economic history) (Audio-visual aids)

VEYSBISH, S.; ROCHKO, V.; VINOGRADOV, S., red.; KOSTIN, M., red.

[Long step toward the great goal, 1959-1965] Krupnyi shag k velikoi  
tseli, 1959-1965. Gospolitizdat, 1958. 1 v. (unpaged)  
(Russia--Economic policy) (MIRA 12:2)

POLTOYGIN, V.K.; RUMYANTSEV, A.F., otv.red.; ROCHKO, V.N., red.

[Economics of socialist industrial enterprises; visual aids]  
Ekonomika sotsialisticheskikh promyshlennykh predpriiatii;  
nagliadnye posobiia. Moskva, Gospolitizdat, 1960. 20 plates.  
(MIRA 13:12)

(Industrial statistics--Audio-visual aids)

1. ROCHEGOV, A. G.
2. USSR (600)
4. Architecture - Volga-Don Canal
7. Experience with the use of sectional architectural parts on the structures of the Volga-Don Canal. Biul.stroi.tekh., 9, no. 24, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

General  
Chemistry

CP

Beckmann rearrangement of cyclohexanone oxime.  
Kinetics of final stages of the reaction. I. Oto Wichterle and Jan Kovák (Tech. Univ., Prague, Czech.). *Chem. Listy* 45, 237-9 (1951).—Because the reaction is exothermic and rapid, the kinetic studies of the Beckmann rearrangement offer many difficulties. However, the final stages of the reaction can be easily followed, since the oxime is dill. with the product of rearrangement which lowers the temp. peak from the heat developed in the reaction. The measurements were carried out in 30-80% solns. of cyclohexanone oxime and  $\epsilon$ -caprolactam in 5% oleum. The reaction is of the 1st-order. The velocity consts. at 10-80° were detd.—II. *Ibid.* 379-80.—The effect of the concn. of  $\text{SO}_3$  in oleum on the reaction rate of the Beckmann rearrangement of cyclohexanone oxime was followed at const. temp. with a const. amt. of oleum. Changes of the  $\text{SO}_3$  content in approx. 100%  $\text{H}_2\text{SO}_4$  influenced the reaction rate most effectively. The min. effect was with a change of concn. of  $\text{SO}_3$  in 5-10% oleum. The reaction was 1st-order, and its rate const. at 30° was  $1.15-9.2 \times 10^{-4}$ , depending on the  $\text{SO}_3$  content in the oleum. M. Hudlický

Röck, J.  
Chemical Abst.  
Vol. 48 No. 6  
Mar. 25, 1954  
Organic Chemistry

Beckmann rearrangement of cyclohexanone oxime.  
Kinetics of final reaction phases. J. Röck and Z. Bergl  
(Vysoká škola chem., Prague, Czechoslovakia). Listy 47,  
472-3 (1963); cf. C.A. 46, 10809. — The reaction rate of the  
Beckmann rearrangement of cyclohexanone oxime in 10%  
oleum was found to be the same as in 5% oleum. In the  
range of 20-70° and 30-70% oxime, the rearrangement rate  
is independent of the SO<sub>2</sub> concn. in the interval of 5-10%  
SO<sub>2</sub> in oleum. M. Hudlický

1 OF 2

*Rocek, Jan*

Addition of dienes to thionylamines. Preparation of heterocyclic compounds of 1,2-thiazine series. Oto Wichterle and Jan Rocek (Vysoká škola chem., Prague, Czech.) Chem. Listy 47, 1703-80 (1953); Collection Czechoslov. Chem. Commun. 19, 282-98 (1954) (in Russian); cf. C.A. 42, 5561; following abstr.—A new type of the Diels-Alder reaction was discovered in the addn. of dienes,  $\text{CH}_2:\text{CHCH:CH}_2$  (I) and  $\text{CH}_2:\text{CMeCMe:CH}_2$  (II), to aromatic thionylamines

(RN:S=O) which led to substituted 2,3-dihydro-6H-1,2-thiazine 1-oxides (III), a new type of heterocycle. The reactions of III were studied for 4,5-dimethyl-2-phenyl-2,3-dihydro-6H-1,2-thiazine 1-oxide (IIIa) which gave on acidic hydrolysis  $\text{PhNHCH}_2\text{CHMeCMe:CH}_2$  (IV), on alk. hydrolysis 1-phenyl-3,4-dimethylpyrrole (V) (see following abstract), by  $\text{LiAlH}_4$  reduction 2-phenyl-4,5-dimethyl-2,3-dihydro-1,2-thiazine (VI), and by oxidation IIIa 1,1-dioxide (VII), the 4,5-epoxy deriv. (VIII) of IIIa, and the 4,5-epoxy deriv. (IX) of VII. The addn. does not occur with aliphatic thionylamines. The thionylamines were prep'd. by heating amines with  $\text{SOCl}_2$  on the steam bath, until no more HCl escaped, and distg. or crystg. the crude product. Conditions and properties of thionylamines are listed (g. of amine, ml.  $\text{SOCl}_2$ , ml.  $\text{C}_6\text{H}_6$ , reaction time in hrs, b.p., m.p., % yield):  $\text{PhN:S=O}$ , 1020 ( $\text{PhNH}_2\text{HCl}$ ), 600, 2300, 15,  $\text{PhN:S=O}$ , 84-86°, —, 85;  $\beta\text{-C}_6\text{H}_5\text{N:S=O}$ , 17.5, 11, 150, 2,  $\text{b}_{10}$ , 123°, 55-6°, 90.5;  $m\text{-C}_6\text{H}_4\text{N:S=O}$ , 50, 30, 100, 4.5,  $\text{b}_{10}$ , 114.5°, 21°, 98.3;  $o\text{-MeC}_6\text{H}_4\text{N:S=O}$ , 39.8, 30, 100, 0.7,  $\text{b}_{10}$ , 99.5°, —, 98;  $p\text{-MeOCC}_6\text{H}_4\text{N:S=O}$ , 12, 10, 100, 2.7,  $\text{b}_{10}$ , 129°, 63-4°, 89;  $p\text{-MeOC}_6\text{H}_4\text{N:S=O}$ , 21.8, 15, 150, 2,  $\text{b}_{10}$ , 132°, 24°, 93.6;  $p\text{-C}_6\text{H}_4\text{(N:S=O)}$ , 12.5, 20, 100, 2.7, —, 113.5-14.5°, 86.  $\text{BuNH}_2$  (73 g.) in 100 ml.  $\text{Et}_2\text{O}$  was treated, at -10°, with 43 g.  $\text{SOCl}_2$  in 100 ml.  $\text{Et}_2\text{O}$ , heated on the steam bath 1 hr., the  $\text{BuNH}_2\text{HCl}$  filtered off, and the residue distd. yielding 12.3 g. (28.4%)  $\text{BuN:S=O}$ ,  $\text{b}_{10}$ , 84-5°,  $d_{4}^{20}$  1.0185. The addn. was carried out by boiling a slight excess of the diene with the thionylamine several hrs. on the steam bath. Refluxing 70 g.  $\text{PhN:S=O}$  and 45 g. II 8 hrs., and distg. the mixt. at 1-2 mm. gave 12 g. (17%) unreacted  $\text{PhN:S=O}$  and a residue which yielded 80 g. (72%) unreacted  $\text{PhN:S=O}$ .

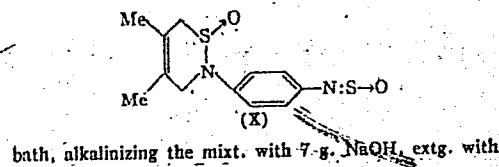
*OTO WICHTERLE*

IIIa, m. 79.5-80.7° (from cyclohexane). M.p.s. and % yields (based on the reacted thionylamines) of III (R = Me, R' given) were as follows: *m*-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 172-8°; 80; *p*-O<sub>2</sub>N-C<sub>6</sub>H<sub>4</sub>, 173-5° (decompn.); 40; *o*-MeC<sub>6</sub>H<sub>4</sub>, 82.5-3.5°, 65; *p*-MeC<sub>6</sub>H<sub>4</sub>, 100.5-1.5°, 69; *p*-MeOC<sub>6</sub>H<sub>4</sub>, 110.5-11°, 88; *p*-MeO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>, 108-7°, 87; *o*-C<sub>6</sub>H<sub>5</sub>H<sub>3</sub>, 128-30°, 70; *p*-C<sub>6</sub>H<sub>5</sub>H<sub>3</sub>, 153.9-4.3°, 63; *m*-ClC<sub>6</sub>H<sub>4</sub>, 130-7°, 79. The compds. were crystd. from C<sub>6</sub>H<sub>6</sub>-petr. ether, or from EtOH. I (28 ml.) and 29 ml. PhN:S=O heated in a sealed tube 8-16 hrs. at 110° gave after crystn. from C<sub>6</sub>H<sub>6</sub> 2-phenyl-2,3-dihydro-6*H*-1,3-thiazine 1-oxide (IXa), m. 97-7.5° (from C<sub>6</sub>H<sub>6</sub>-petr. ether), and its mol. compd. with 1 mole PhNH<sub>2</sub>, m. 74.2-5.2°. The same addn. compd., m. 74.2-6.2°, was prep'd. in 95% yield by mixing 0.74 g. IXa and 0.36 g. PhNH<sub>2</sub> in 2.5 ml. C<sub>6</sub>H<sub>6</sub>. *p*-C<sub>6</sub>H<sub>5</sub>(N:S=O)<sub>2</sub> (6 g.) and 8 ml. II gave, after heating 11 hrs. on the steam bath, 4.3 g. unstable X, m. 157-62°, which hydrolyzed by 1 day standing to the *p*-H<sub>2</sub>N analog of IIIa, m. 190-7° (decompn.). Heating 30 g. IIIa with 15 ml. HCl and 45 ml. H<sub>2</sub>O 30 min. on the steam-

Et<sub>2</sub>O and evapg. the Et<sub>2</sub>O ext. gave 23 g. (95.7%) IV, b.p. 101°, d<sub>4</sub> 0.9394, d<sub>10</sub> 0.9449, n<sub>D</sub><sup>20</sup> 1.6390 (HCl salt, m. 120-32°; the nitroamine, picrate, and Ba derivs. are oils). Hydrogenation over PtO<sub>2</sub> showed 0.94 double bond. When the hydrolysis was carried out with 10% H<sub>3</sub>PO<sub>4</sub>, a small amt. of PhNHCH<sub>2</sub>CHMeCMe(OH)Me, b.p. 135°, n<sub>D</sub><sup>20</sup> 1.5610, was obtained. IIIa (2.2 g.) boiled with 0.2 g. LiAlH<sub>4</sub> in 50 ml. Et<sub>2</sub>O the mixt. decompd. with 3 ml. H<sub>2</sub>O, and the Et<sub>2</sub>O layer evapd. yielded 1.94 g. of an oil which gave VI, m. 93-4° (from MeOH). Treating 1.1 g. IIIa with 825 mg. BzO<sub>2</sub>H in 25 ml. CHCl<sub>3</sub> 15 hrs. at -15° gave a good yield of VIII, m. 147-8° (from EtOH-H<sub>2</sub>O). Similarly from 16.5 g. IIIa and 0.080 mole BzO<sub>2</sub>H, were obtained 5.7 g. VIII and, by chromatography, 1.4 g. VII. VII, m. 151.6-2.5°, was also prep'd. (1.4 g., 40%) by treatment of 4.4 g. IIIa in 80 ml. EtOH with 16 ml. 5% NaOH and 16 ml. 30% H<sub>2</sub>O<sub>2</sub> at room temp. IIIa (1.1 g., 0.005 mole) with 30 ml. CHCl<sub>3</sub> contg. 0.012 mole BzO<sub>2</sub>H yielded, after 20 days at room temp., 1 g. (79%) IX, m. 81.7-2.7° (from C<sub>6</sub>H<sub>6</sub>-petr. ether). Heating 2.37 g. VIII with 10 ml. 5% HCl yielded a small amt. of a compd. m. 121° and 1.24 g. (65%) of an oil distg. at 0.2-0.3 mm. at 111-28° (bath temp.), d<sub>4</sub> 1.0260, n<sub>D</sub><sup>20</sup> 1.5540, probably PhNHCH<sub>2</sub>CMe(OH)CMe:CH<sub>3</sub>. Heating 8.8 g. IXa with 5.5 ml. HCl and 15.5 ml. H<sub>2</sub>O 40 min. on the steam-

bath, and 5 min. to the b.p., alkalinating the mixt., extg. with Et<sub>2</sub>O, and evapg. the ext. gave 5.77 g. (87%) PhNH-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub> (XI), b.p. 133°, d<sub>4</sub> 0.9573, n<sub>D</sub><sup>20</sup> 1.5538; acidic oxalate, m. 149.5-61° (decompn.) (from EtOH); HCl salt, m. 137.5-40.5° (decompn.). Ozonization of the Ac deriv. of XI b.p. 158°, gave CH<sub>2</sub>O. Treating 1.93 g. IXa with 0.11 mole BzO<sub>2</sub>H in a mixt. of C<sub>6</sub>H<sub>6</sub>, CHCl<sub>3</sub>, and CCl<sub>4</sub>, gave 1.35 g. (65%) 2-phenyl-2,3-dihydro-6*H*-1,2-thiazine 1,1-dioxide, m. 85-6° (from MeOH and EtOH).

M. Hudlicky.



bath, alkalinizing the mixt. with 7 g. NaOH, extg. with

Racek, V.A.

A new synthesis of *N*-arylpurroles. Jan Racek (Vysoké Molek. chem., Praha, Czech.). *Chem. Listy* 47, 1781-8 (1953); *Collection Czechoslov. Chem. Commun.* 19, 275-80 (1954) (ir: German); cf. preceding abstr.—Alk. hydrolysis of 2-phenyl-3,6-dihydro-1,2-thiazine 1-oxide (I) and of 2-aryl-4,6-dimethyl-3,6-dihydro-1,2-thiazines 1-oxide (II) gave high yields of *N*-phenylpurrole (III) and 2-aryl-3,4-dimethyl-purroles (IV). The arylpurroles were prep'd. by refluxing I or II 1-2 hrs. with alc. KOH and isolating the product by steam distn. or pptn. with H<sub>2</sub>O. Refluxing 1.5 hrs. 2.79 g. 4,5-dimethyl-2-(4-carbomethoxyphenyl)-3,6-dihydro-1,2-thiazine 1-oxide with 2.5 g. KOH in 80 ml. EtOH, pouring the mixt. into 150 ml. H<sub>2</sub>O, filtering the soln. and acidifying with 28 ml. N H<sub>2</sub>SO<sub>4</sub> to pH 3-4 gave 2.10 g. (100%) 1-(4-carboxyphenyl)-3,4-dimethyl-purrole, m. 274-6° (decompn.). Similarly were prep'd. III (m. 60-1°, yield 40%) and the following IV (aryl, yield, m.p.): Ph, 92%, 71-2°; *p*-MeC<sub>6</sub>H<sub>4</sub>, 90.3, 52-3°; *p*-MeC<sub>6</sub>H<sub>4</sub>, 75, 105-6°; *p*-MeOC<sub>6</sub>H<sub>4</sub>, 97.5, 101.5-4.5°; *m*-CIC<sub>6</sub>H<sub>4</sub>, 64, 33-4.5°; *a*-C<sub>6</sub>H<sub>5</sub>, 39, 46.5°; *B*-C<sub>6</sub>H<sub>5</sub>, 93, 109-12°; *p*-NH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, 90.4, 142-3°. The purroles were crystd. from dil. MeOH or EtOH. 4,5-Dimethyl-2-(*m*-nitrophenyl)-3,6-dihydro-1,2-thiazine 1-oxide (2 g.) was refluxed 2 hrs. with 5 g. KOH in 90 ml. EtOH, the mixt. satd. with CO<sub>2</sub>, the EtOH distd. off, the residue treated with H<sub>2</sub>O and Et<sub>2</sub>O and the ether ext. evapd. to yield 0.3 g. (14%) 3,5'-bis(3,4-dimethyl-1-pyrrolyl)azobiphenylene, m. 124-6° (from EtOH). M. Hudlický

ROCEK, J.

A new method for the preparation of n-arylpurrole [in German with summary in Russian]. Sbor.Chekh.khim.rab. 19 no.2:275-281 Ap '54.  
(MLRA 7:6)

1. Institut plastmass Prazhskogo Khimicheskogo instituta.  
(Pyrroles)

WICHTERLE, O.; ROCEK, J.

Addition of dienes to thyonylamines; preparation of heterocyclic compounds of 1,2-thiazine series [with summary in German]. Sbor.Chekh. (MLRA 7:6) khim.rab. 19 no.2:282-297 Ap '54.

1. Institut plastmass Prazhskogo Khimicheskogo instituta.  
(Thiazine)

~~R.CEK,JAN~~

Hammett acidity functions for the system acetic acid-phosphoric acid-water. Otto Knesl, Jan Rucek, and Bohumil Marek. Collection Czechoslov. Chem. Commun., 40, 631-6 (1965) (in German).—See C.A. 49, 93624. E. J. G.

(2)

Rocek

B-9

Category: Czechoslovakia

Abs Jour: Zh-Kh, No 3, 1957, 7546

Author: Rocek, J. and Shorm, F.

Inst: Not given

Title: Oxidation with Chromic Oxide. I. The Oxidation with Chromic Oxide as an Acid-Catalyzed Reaction. (Rocek, J. and Shorm, F.). II. On the Solubility of Chromic Oxide in Acetic Acid (Rocek, J.)

Orig Pub: Sb. chekhosl. khim. rabot, 1955, Vol 20, No 5, 1009-1017; 1249-1250 (in German with a summary in Russian)

Abstract: No abstract. See RZhKhim, 1956, 46401.

Card: 1/1

-11-

ROCEK, JAN

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CZECH

Hammett acidity functions for the system acetic acid-phosphoric acid-water. Otto Kuessl, Jan Rocek, and Miroslav Marek (Ustav org. chemie CSAV, Prague). Chem. Listy 49, 302-6 (1955).—The Hammett acidity function for the system at 20° was detd. in the concn. ranges 0-15%.

$H_3PO_4$  and 0-6%  $H_2O$ . The indicator was *p*-nitroaniline. This system forms a buffer soln. suitable for the study of acid catalysis in the AcOH soln.

E. Erdös

grw

J. Hudeček  
Rudolf Janík

Oxidations with chromium trioxide. I. Oxidation with chromium trioxide as an acid-catalyzed reaction. Jan Hudeček and František Šorin (Česk. akad. věd, Prague). *Czech. Listy* 49, 308-12 (1955).—The oxidation of methylcyclohexane (I) with CrO<sub>3</sub> in anhyd. AcOH was studied kinetically under varying concns. of I and in the presence of H<sub>2</sub>SO<sub>4</sub>, CCl<sub>4</sub>CO<sub>2</sub>H, H<sub>2</sub>O, Cr(OAc)<sub>3</sub>, AcONa, and pyridine. The oxidation is strongly catalyzed by strong acids (H<sub>2</sub>SO<sub>4</sub>, PhSO<sub>3</sub>H) and inhibited by bases such as H<sub>2</sub>O, Cr(OAc)<sub>3</sub>, and especially by pyridine and AcONa. The inhibition by Cr(OAc)<sub>3</sub> is due to its basicity only, no other specific effect being responsible for the drop of the rate of oxidation. II. Solubility of chromium trioxide in acetic acid. J. Hudeček. *Ibid.* 369-70.—The solv. of CrO<sub>3</sub> in anhyd. AcOH estd. heretofore as 1% was found to be approx. 0.1% at room temp. The exact detn. of solv. is difficult, since traces of water and of Cr(OAc)<sub>3</sub> increase the solv. considerably. With 99.95% AcOH, 0.1% H<sub>2</sub>O doubles the solv. of CrO<sub>3</sub>, 1% H<sub>2</sub>O increases the solv. of CrO<sub>3</sub> ten times as compared with the concen. of H<sub>2</sub>O of the same molarity. M. Hudlický.

Röcek, Jan

The acidity of certain mineral acids in acetic acid. The acidity function ( $H_0$ ). Jan Röcek (Chem. listy CSAV, Prague). Chem. Listy 56, 128-37 (1968). In media with low polarity Hammett's acidity function  $H_0$  is not independent of the indicator used. Therefore, for such media a relative acidity function ( $H_{0i}$ ) is introduced, the values of which are referred to the indicator  $i$  that has been used as a basis for the acidity detn. The properties of these functions and their relations to the general function  $H_0$  are discussed. The acidities of  $H_2SO_4$ ,  $HClO_4$ , and  $H_3PO_4$  in AcOH with variable  $H_2O$  content were detd. with *4-chloro-2-nitroaniline*, *o-nitroaniline*, and *p-nitroaniline* as indicators. The previously published  $H_0$  values of  $H_3PO_4$  in AcOH are corrected. B. Brdo

Rocek, J.

Rocek, J. Securing the flow of water against excessive pressure. p. 15.

Vcl. 7, no. 1, Jan. 1957

STROJIRNISTVI

TECHNOLOGY

Czechoslovakia

So: East European Accessions, Vol. 6, May 1957  
No. 5

ROCEK, J.

TECHNOLOGY

PERIODICALS: JADERNA ENERGIE Vol. 4, no. 12, Dec. 1958

ROCEK, J.; BARTOSEK, V. Physical data on the design of heavy and light-water moderated homogenous reactors, p. 365

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5  
May 1959, Unclass.

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*5*  
*2 May*

Oxidations with chromic oxide. VII. Mechanism of the oxidation of secondary alcohols. / Jan Röck and Josef Krupička (Čsl. akad. věd, Prague). *Chem. listy* 52, 1735-36 (1958); *C.A.* 52, 46105. — Oxidation of iso-PrOH (I) by CrO<sub>3</sub> (II) in a strongly acidic medium contg. 5-70% H<sub>2</sub>SO<sub>4</sub> was studied by polarographic method. The course of log k plotted against H<sub>2</sub> is linear up to H<sub>2</sub> = -3.5 and the slope of the line is 0.91. These results favor a new proposed mechanism for the oxidation of secondary alcs. by II by way of a cyclic transition state (III), featured by a hydride transfer from the secondary C to II. This mechanism offers a much more satisfactory explanation of a

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series of phenomena observed in the oxidation of alcs. by CrO<sub>3</sub> than the generally accepted mechanism of Cohen and Westheimer (*C.A.* 47, 8633b) who assumes the formation of an ester of I with II as an intermediate. The catalysis of the reaction by C<sub>6</sub>H<sub>5</sub>N described by C. and W. was not noticed. On the basis of the measurements of the oxidation rate in the dependence on the concn. of H<sub>2</sub>SO<sub>4</sub>, the pK<sub>a</sub> of the conjugate acid of I was estd. to -4.1 ± 0.8. The mechanism proposed for the secondary alcs. could also be possibly applied to primary alcs. M. Hudlický

*J.R.*

ROCEK, J.

"M. Wolf and M. Beran's Laboratorni sklo. Jeho konstrukce, kalibrace, funkce a  
uziti (Laboratory Glass; Its Design, Calibration, Function, and Use); a book  
review"

Chemicke Listy. Praha, Czechoslovakia. Vol. 53, no. 1, Jan 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

ROCEK, J., inz., Sc.C.

Practical use of model measurements of fast-lifting safety-valves.  
Strojirenstvi 12 no.1:49-55 Ja '62.

i, Vyzkoune stredisko armatur, Modreny.

MARES, F.; ROCEK, J.

Oxidation with chromium (VI) oxide. Part 12: Oxidation of carboxylic acids; influence of an electro-negative substituent on the oxidation course. Coll Cz Chem 26 no.9:2389-2400 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

(Oxidation) (Chromium oxide) (Acids)

MARES, F.; ROCEK, J.; SICHER, J.

The chromic acid oxidation of cycloparaffins; correlation between reactivity and thermochemical strain, and notes on reaction mechanism.  
Coll Cz Chem 26 no.9:2355-2369 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

(Chromic acid) (Cycloalkanes)

ROCEK, J.

Equilibria and reaction rates in the system tertiary alcohol-  
tertiary alkyl ester-olefin. Coll Cz Chem 25 no.7:1751-1761  
(EEAI 10:9)  
Jl '60.

1. Department of Organic Synthesis, Institute of Chemistry, Czechoslovak Academy of Science, Prague.

(Phase rule and equilibrium) (Alcohols) (Alkyl groups)  
(Esters) (Olefins)

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28449  
Z/038/61/000/010/001/008  
D291/D301

AUTHORS: Čermák, Jiří, and Roček, Jindřich

TITLE: Activities of the Theoretical Physics Department of  
the Nuclear Research Institute during 1954 - 1961

PERIODICAL: Jaderná energie, no. 10, 1961, 326-329

TEXT: The article briefly reviews the 1954-61 activities of the Theoretical Physics Department of the Nuclear Research Institute and lists research conducted in the field of reactor physics, to solve problems arising from the project of the first Czechoslovak nuclear research reactor. A list of publications, cited in this article, is given at the end. One of the major research items was neutron diffusion in the heterogeneous medium (Ref. 2: L. Trlifaj: Homogenizace heterogenního prostředí, Čs. čas. Fys. 6 (1956), p. 509); (Ref. 4: L. Trlifaj: On the anisotropy of a heterogeneous medium with respect to the diffusion of neutrons I, II, Czechosl. Journ. Phys. 7 (1957), pp. 397 and 593). An example is mentioned where the lattice of a heterogeneous reactor is X

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Activities of the Theoretical ...

homogenized by replacing the fuel rods and the moderator by an effective homogeneous medium. Neutron diffusion was studied in an infinite flat lattice with the aid of the kinetic theory of diffusion and compared with results achieved by the phenomenologic and other methods. The method of spherical harmonics was applied to solve concrete physical problems, e.g. calculation of the thermal neutron flux in the fuel element, and of the thermal utilization factor, etc, (Ref. 10: L. Trlifaj: Some aspects of the spherical harmonics method for neutron-transport problems in cylindrical geometry. Czechosl. Journ. Phys. 8 (1958), p. 390). Corrections of some erroneous assumptions, published in foreign papers on the equivalence method of spherical harmonics and the Wick-Chandrasekhar method of discrete coordinates, are made by L. Trlifaj (Ref. 11: O vztahu mezi sférickými harmonickými a metodu diskretních souřadnic. Czech. Journ. Phys. 9 (1959), p. 535). Irregularities in the heterogeneous lattice were another research subject and studies concentrated on boundary problems, i.e. determination of conditions on the boundary between the

Card 2/ 5

Activities of the Theoretical ...

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scattering medium and the vacuum (Milne's problem) or on the boundary of an infinitely large cylindrical black rod situated in an infinite medium, and the coherent determination of the extrapolated length or effective radius of the rod. The problem of the exchange of one block in a two-dimensional square lattice by another block with different physical properties was successfully solved by L. Trlifaj and J. Roček (Ref. 12: Zamena bloka v dvumernoy kvadratnoy reshotke, Atomnaya energiya 9 (1960), p.366). A formula was derived for the effective radius of a black rod and it was found that, at greater distances from the exchanged block, formulas for the deformation of the neutron density take on the same form as those for a homogeneous medium. Other studies dealt with the influence of regulation rods in a homogeneous reactor. Methods were investigated which not only allow determination of the efficiency of a regulation rod depending on the depth of insertion, but also the deformation of the neutron density in the vicinity of the rod. The multigroup theory was used for calculating reactor parameters; however, simple criteria were sought to replace the physically improper sets of constants. These cri-

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Activities of the Theoretical ...

teria were found in the form of estimations of certain determinants compiled from the constants. The correctness of the convergence of the so-called "method of iteration of sources", not yet fully confirmed, could be verified. The homogeneous reactor calculations were made for light or heavy-water moderation with the fuel (U-235 or Pu-238) suspended in form of the oxide. Tables were established, containing the results of critical-parameter calculations. The uranium-plutonium cycle was calculated and the changes in the isotopic composition of the fuel during reactor operation, and the influence of these changes on the reactivity of the system were stated. It was found that Pu-239, produced in the reactor from slightly enriched uranium, could be used to enrich the natural uranium for the next reactor run. The burn-up of a reactor could thus be reduced from 10,000 to 2,000 Mwd/t. Finally, the Nuclear Research Institute also engaged in studies of theoretical nuclear physics, especially the theory of elementary particles, nuclear models, beta-decay, etc. (Ref. 26:  
I. Šlehlá: Meson scattering on nucleons. Czech. Journ. Phys. 10 (1960), p. 701; L. Gomolčák, Z. Pluhář, I. Šlehlá: Optický model

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D291/D301

Activities of the Theoretical ...

atomového jádra. Práce ÚJV, no. 442 (1960)); (Ref. 29: F. Janouch: Internal bremsstrahlung in  $\beta^- \rightarrow \beta^+$  beta transitions. Nucl. Phys. 25 (1961), p.328. Report delivered at the 1961 Conference on Nuclear Spectroscopy in Riga); Ref. 31: I. Stoll: Stabilita periodických procesů v plazmatu. Čs. čas. fys., printing). There are 31 references: 28 Soviet-bloc and 3 non-Soviet-Bloc. The references to the English-Language publications read as follows: I. Marek: On iterations of linear bounded operators and Kellogg's iterations in not selfadjoint eigenvalue problems. Comm. Math. Univ. Carol. I (4) 1960; F. Janouch: Internal bremsstrahlung in  $\beta^- \rightarrow \beta^+$  beta transitions. Nucl. Phys. 25 (1961), p.328.

ASSOCIATION: Ústav jáderného výzumu CSAV (Nuclear Research Institute, Czechoslovak AS)

Card 5/5

TRLIFAY, L.; ROCHEK, Y. [Roček, J.]

Replacement of a block in a two-dimensional rectangular array.  
Atom.energ. 9 no.5:366-374 N '60. (MIRA 13:11)

1. Institut yadernykh issledovaniy Chekholskovatskoy AN, Praga.  
(Nuclear reactors)

ROCEK, J.

Oxidations with chromium (VI) oxide. IX. Application of Zait's  
equation to the oxidation of primary alcohols. Coll Cz Chem 25  
no.4:1052-1057 Ap '60. (EEAI 9:12)

1. Department of Organic Synthesis, Institute of Chemistry,  
Czechoslovak Academy of Science, Prague.  
(Oxidation) (Chromium oxides) (Alcohols)

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V Oxidations with chromium(VI) oxide. VIII. Oxidation of straight-chain paraffins<sup>1</sup> [an example of linear dependence of reaction rate on the number of reactive groups. J. Roček and E. Mareš (Českoslov. akad. věd, Prague). Collection Czechoslov. Chem. Commun. 24, 2741-7 (1959) (in English); cf. C.A. 53, 5117h.—The rate of oxidn. of a homologous series of paraffins is directly proportional to the no. of CH<sub>3</sub> groups. The rate of any member can be calcd. from the expression  $k_n = (n - 2) \times k_{CH_3}$ , where  $n$  is the no. of C atoms and  $k_{CH_3}$  the rate const. for the oxidn. of a single CH<sub>3</sub> group. The rate of oxidn. of Me groups is at least by an order lower than that of CH<sub>3</sub> groups. The values of  $k_{CH_3}$  calcd. from the results for each individual hydrocarbon from the above equation are on the av.  $5.73 \times 10^{-3}$  at 50° for 0.2M H<sub>2</sub>SO<sub>4</sub> in 99% AcOH. Relationships between the reactivity of a group and its position on a linear chain and the character of the reaction are discussed. The authors suggest that the rate-detg. process is the removal of a H from the hydrocarbon as hydride ion with the formation of an alkyl cation.

L. Bráňek

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R. J. M., c.

"Oxidation with chromium (VI) oxide. II. quantitative study of the acid-catalyzed oxidation of methylcyclohexane. In German." "V. Ixudatub if ctckigexake abd n-heptane. In English."

p. 1509 (Collection of Czechoslovak Chemical Communications. Vol. 22, no. 5, Oct. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (MIEA) LC, Vol. 7, no. 7, July 1956

ROCEK, J.

"Pressure losses in fittings." p. 163.

STROJIRENSTVI. (Ministerstvo tezkeho strojirenstvi, Ministerstvo presneho strojirenstvi a Ministerstvo automobiloveho prumyslu a zemedelskych stroju). Praha, Czechoslovakia, Vol. 9, No. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 6, No. 8,  
August 1959.  
Uncla.

CZECHOSLOVAKIA/Nuclear Physics - Nuclear Technology and Power.

c

Abs Jour : Ref Zhur Fizika, No 12, 1959, 26975  
Author : Rocek, Jindrich; Bartosek, Vaclav  
Inst : Institute of Nuclear Physics, Czechoslovak Academy of Sciences  
Title : Physical Data for the Design of Homogeneous Reactor with Light and Heavy Water  
Orig Pub : Jaderna energie, 1958, 4, No 12, 365-371  
  
Abstract : In connection with the project of a homogeneous ten-megawatt reactor, a theoretical investigation was made of the dependence of the critical parameters of the active zone on the composition of the fuel suspension, and also of the long-term changes in the composition of suspension during the reactor operation.  
-- P.P. Sosenko

Card 1/1

- 33 -

Rocek, Jan

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001444  
CZECHOSLOVAKIA/Organic Chemistry  
Questions on Organic Chemistry. G-1

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14326.

Author : Rocek Jan  
Inst :  
Title : Oxidation with Chromium Trioxide. V. Oxidation of Cyclohexane and n-Heptane.

Orig Pub: Chem. listy, 1957, 51, No 3, 459-462; Sb. chekhol. khim. rabot, 1957, 22, No 5, 1519-1523.

Abstract: Consideration of data secured in previous research (see Communication IV, RZhKhim, 1957, 47418) on oxidation of methylcyclohexane (I) with CrO<sub>3</sub>, shows that they are of a more general significance and are not dependent upon the presence of either a tertiary C, or a CH<sub>3</sub> group, since the oxidation of cyclohexane and of n-heptane, although it takes place many times more slowly than the oxidation of I, reveals essentially

Card : 1/2

CZECHOSLOVAKIA / Organic Chemistry. General and  
Theoretical Topics of Organic Chemistry.

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Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60852.

Abstract: of the first order with reference to I and II, and  
of the zero order with reference to CrO<sub>3</sub> (the CrO<sub>3</sub>  
concentration drops linearly with the time, if I  
and II were in excess, and the magnitude of the  
constant k<sub>o</sub> is constant at the varying CrO<sub>3</sub> con-  
centration). The oxidation rate (OR) of I is a  
linear function of the medium acidity H<sub>o</sub> (RZhKhim,  
1957, 14865). The dependence of log k on H<sub>o</sub> was  
determined for H<sub>2</sub>SO<sub>4</sub> in 90%-ual CH<sub>3</sub>COOH, for H<sub>2</sub>SO<sub>4</sub>  
in 100%-ual CH<sub>3</sub>COOH and for NaClO<sub>4</sub> in 90%-ual  
CH<sub>3</sub>COOH. The angle factor of the straight line  
equals to 1.1, which agrees well with the theore-  
tical value (1.0). After an addition of water,

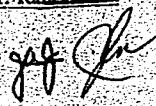
Card 2/4

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Oxidation of secondary alcohols by chromium(VI) oxide.  
J. Rocák and J. Krupička. (Czech. Acad. Sci., Prague).  
Chem. & Ind. (London) 1957, 1068-9.—A new mechanism  
for the oxidation of secondary alcohols by Cr(VI) oxide has been  
proposed which involves the direct transfer of hydride anion  
of an H atom from the alc. to the oxidizing agent ( $H_2CrO_4$ ).  
This has been supported experimentally by measuring the  
rate of oxidation of iso-PrOH over a range of acidities from  
5-55% aq.  $H_2SO_4$ . The plot of the logarithms of the rate  
constants vs. the acidity function  $H_A$  showed a linear re-  
lationship in accordance with the proposed mechanism.  
M. H. Rasmussen



ROCEK, J.

The acidity of certain mineral acids in acetic acid. The  
Acidity function. J. Rocek. Collection - Czechoslov. Chem.  
Commun. 22, 1-10 (1957) (in English). See C.A. 50,  
10489. //

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001444

ROČEK, J. - Strojírenství - Vol. 5, no. 4, Apr. 1955.

Safety valves. p. 243.

SO: Monthly list of East European Accessions, (EHAL), LC, Vol. 4, No. 9, Sept. 1955  
Uncl.

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0014449

ROCEK, J.; SORM, F.

Oxidation with chromium (VI) oxide. I Oxidation with chromium (VI) oxide as an acid-catalyzed reaction. p. 306.  
CHEMICKE LISTY Vol. 49, No. 3, Mar. 1955

SO: Monthly East European Accession (EEAL), LC, Vol. 9, Sept. 1955 Uncl.

ROCEK, J.

Oxidation with chromium (VI) oxide. II. Solubility of chromium (VI) OXIDE IN ACETIC  
ACID. P. 369  
CHEMICKE LISTY Vol. 49, No. 3, Mar. 1955

SO: Monthly East European Accession (EEAL), LC, Vol. 9, Sept. 1955 Unclassified

STANEK, Miroslav, inz.; TEYSSLER, Jiri, inz., dr.; FISCHER, Jiri, inz.;  
SPITALNIK, inz.; STEKL, inz.; NAVRATIL, Miroslav, inz., dr.;  
IBLER, Jaroslav, inz., dr.; KARAS, Frantisek, prof., inz., dr., ScDr.;  
CESKA, inz.; HOFFMANN, V., inz.; CHALUPSKY, Josef, inz.;  
FAPSO, O., inz.; ROCEK, Jaroslav, inz., ScC.; SVEJDA, J., inz.;  
LENCZ, Imrich, inz.; RAJDA, Frantisek; BALOS, Jaroslav, inz.;  
MACHA, Jiri, inz.

Third National Conference on the Results of Research and  
Development of Power Installations. Energetika Cz:Suppl.:  
Energetika 13 no.6:1-24 '63.

KORDIK, Evzen; DUNDR, Vladimir; FORST, Zdenek; KLOFEC, Miroslav; MICEK, Frantisek; ROCEK, Otto

Physical and chemical principles of the production of carbonate type combined fertilizer. Chem prum 12 no.12:641-645 D '62.

1. Vyzkumny ustav anorganicke chemie, Usti nad Labem.

ROCEK, Vladimir

Maintenance and handling of tools in automated production. Stroj vyr  
10 no.12:596-598 '62.

1. Automobilove zavody, n.p., Mlada Boleslav.

SFRY, Z.; SERA, D.; FAJTA, M.; HOLUSA, R.; KAMENICEK, O.; ROCEK, V.;  
TALAS, M.

Breast dysplasia. Rozhl. chir. 43 no.5:273-277 My '64.

Clinical picture of breast dysplasia. Ibid.:283-287

Vaginal cytology and endometrial histology in breast  
dysplasia. Ibid.:293-296

1. II. chirurgicka klinika (prednosta: doc. dr. J. Burian);  
ustredni rentgenologicky ustav (prednosta: doc. dr. J.  
Doubravsky, CSc.), patolog'choanatomicky ustav (prednosta:  
doc. dr. V. Valach), a gynekologicka klinika (prednosta: doc.  
dr. F. Gazarek, CSc.) lekarske fakulty PU (Palackeho university)  
v Olomouci.

ROCK, V.

"Electromagnetic vibration equipment." p. 131

RUDY. Praha, Czechoslovakia, Vol. 7, No. 4, April, 1959

Monthly List of East European Accessions (EPAI), LC, Vol. 6, No. 9, September, 1959  
Uncl.

JANOUSEK, M.; ROCEK, V.; HOLUSA, R.

Pulmonary aspergilloma in the course of agranulocytosis complicated by candidiasis. Cesk. rentgen. 17 no.1:10-15 Ja '63.

1. I. interni klinika lekarske fakulty PU v Olomouci, prednosta prof. dr. P. Lukl Rentgenologicky ustav lekarske fakulty PU v Olomouci, prednosta doc. dr. J. Doubravsky, CSc. Patologickoanatomicky ustav lekarske fakulty PU v Olomouci, prednosta doc. dr. V. Valach.

(ASPERGILLOSIS) (LUNG DISEASES, FUNGAL)  
(AGRANULOCYTOSIS) (MONILIASIS)

ROCEK, V.

"Jigs and equipment for reducing accident times in production"  
by B. Chvala, A. Rezac. Reviewed by V. Rocek. Strojirenstvi 14  
no. 6: 476-477 Je '64.

ROCEK, V.

Multisteel cutting on a lathe. p. 468.  
STROJIRENSKA VYROBA, Prague, Vol. 3, no. 11, Nov. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,  
June 1956, Unclassified.

ROCEK, V. [Rocek, V.] (Chekhoslovatskaya Sotrialisticheskaya Respublika)

Cone countersinks with a single cutting edge. Stan.1 instr. 31  
no.9:36 S '60. (MIRA 13:9)  
(Metal-cutting tools)

ROCEK,V.; FAJTA,F.; DOUBRAVSKY,J.; SERA,D.; SERY,Z.; HOLUSA,R.; KAMENICEK, O.;  
TALAS,M.

Contribution of simple mammography in the differential diagnosis  
of dysplasia of the female breast. Rozhl. chir. 43 no.5:288-292  
My:64.

1. Ustredni rentgenologicky ustav (prednosta: doc. dr. J.  
Doubraovsky, CSc.); II. chirurgicka klinika (prednosta: doc.  
dr. J. Burian); patologickoanatomicky ustav (prednosta: doc.  
dr. V. Valach) a gynekologicka klinika (prednosta: doc. dr.  
F. Gazarek, CSc.) lekarske fakulty PU (Palackeho university)  
v Olomouci.

HOLUSA,R.; VALACH, V.; SERY,Z.; SERA,D.; FAJTA,M.; KAMENICEK, O.; ROCEK,V.;  
TALAS.M.

Pathology of breast dysplasia. Rozhl. chir. 43 no.5:278-282  
Mý'64.

I. Patologickoanatomicky ustav (prednosta: doc. dr. V.Valach);  
II. chirurgicka klinika (prednosta: doc. dr. J.Burian); ustredni  
rentgenologický ustav (prednosta: doc. dr. J.Doubravsky, CSc.)  
a gynekologicka klinika (prednosta: doc. dr. F.Gazarek, CSc.)  
lekarcke fakulty PU [Palackeho university] v Olomouci.

ROCEK, V.

Combined metalworking, p. 241, STROJIRENSKA VYROBA (Ministerstvo  
strojirenstvi) Praha, Vol. 3, No. 6, June 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,  
Vol. 4, No. 12, December 1955

AMC X, U.

Letters with pressed-in teeth; also, remarks by A. Beneš, p. 216.  
Zprávy M. V. Š. (Ministerstvo strojírenství) Praha, Vol. 4, no.  
6, June 1956.

SOURCE: West European Accession List, Vol. 5, no. 9, September 1956

Rocek, V.

Rocek, V. We are still wasting material. p. 37.

Vol. 5, no. 1, Jan. 1957

STROJIRENSKA VYROBA

TECHNOLOGY

Czechoslovakia

So. East European Accessions, Vol. 6, May 1957

No. 5

FAJTA, F.; ROCEK, V.

Volvulus of the cecum. Cesk. radiol. 18 no.6:402-406 N '64.

1. Rentgenologicky ustav lekarske fakulty Palackeho University  
v Olomouci, (prednosta doc. dr. J. Doubravsky, ScC.).

ROCEK, V.

"Innovators' Method in Grinding Taps", P. 4, (TECHNICKE NOVINY, Vol. 1,  
No. 17/18, Dec. 1953, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,  
Dec. 1954, Uncl.

ROCEK, V.

"Skoda 1200 In An Improved Model", P. 592, (SVET MOTORU, Vol. 8, No. 19,  
Sept. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,  
Dec. 1954, Uncl.

KOCEK, Vladimír

Combined hole-making tools for automatic machining. Stroj výr 12  
no.11:786-790 '64.

Seventy years of the Automobilove zavody National Enterprise in  
Mlada Boleslav. Ibid.:313

1. Automobilove zavody National Enterprise, Mlada Boleslav.

RCCEK, Vladimir

Chamfering of tapped hole edges. Stroj vyr 11 no.10:512-513 0  
'63.

1. Automobilove zavody, n.p., Mlada Boleslav.

ROČEK, Vladimír

Single-cut edge for cutting metal in holes. Straj vyr 13  
n. 1:31 Ja '65.

"Jigs and equipment for production of secondary articles in pro-  
duction by E. Chmelík, J. Štěpánek, V. Šebek. Prepared by Vladimír  
Roček. Inv. d.:70

1. Automobile zavody National Enterprise, Mlada Boleslav.

ROČEK, V.; KRC, C.; FAJTA, F.

Hyperplasia of the thymus in spontaneous pneumomediastinum. Cesk.  
rentgen, 17 no.1:27-29 Ja '63.

1. Rentgenologicky ustav lekarske fakulty PU v Olomouci, prednosta  
doc. dr. J. Doubravsky, CSc.  
(THYMUS HYPERPLASIA) (MEDIASTINAL EMPHYSEMA)

RCCLV, N.

"Meeting of Club of Technologists", p. 10, (TECHNICKÉ NOVINKY, Vol. 2,  
No. 10, Apr. 1974, Bratislava, Czechoslovakia)

SC: "Monthly List of East European Acquisitions", (EEAL), 10, Vol. 4,  
No. 1, Jan. 1974, "Incl."

ROCEK, Vlastimil; KRC, Cyril

Pulmonary thromboembolism. Cesk.rentg.15 nc.2:73-78 Ap '61.

1. Rentgenologicky ustav fakultni nemocnice PU v Olomouci  
Prednosta prim. MUDr. Jaroslav Doubravsky.  
(PULMONARY EMBOLISM)

FAJTA, Frantisek; ROCEK, Vlastimil

Jejunogastric invagination. Cesk. rentg. 15 no.6:396-400 '61.

1. Rentgenologicky ustav fakultni nemocnice PU, Olomouc, prednosta  
MUDr. J. Doubravsky.  
(INTUSSUSCEPTION)

ROCEK, V.

"Fixtures and equipment for reducing production time" by B.  
Chvala, A. Rezac. Reviewed by V. Rocek. Strojirenstvi 14 no.12:  
966 D '64.

SIROTANOVIC, Ksenija; ROCEN-BAJLON, Milka

Synthesis of the S-acetyl- and S-phenyl-  $\alpha$ -acetylamino-thiolactic acid. ( $\alpha$ -acetyl-(phenyl)-thio-propionic acid). Glas Hem dr 25/26 no.1/2:103-108 '61.

1. Faculty of Science, Institute of Chemistry, Beograd.

(Acetyl group) (Phenyl compounds) (Propionic acids)

L 31062-66 EWP(c)/EWP(k)/T/EWP(1)/EWP(f)/EWP(v)

ACC NR: AP6022559

SOURCE CODE: CZ/0031/65/013/012/0859/0863

A3  
B

AUTHOR: Rocek, Vladimir

ORG: AZNP, Mlada Boleslav

TITLE: Development of production line tools for the machining of the cylinder heads of motor vehicle engines

SOURCE: Strojirenska výroba, v. 13, no. 12, 1965, 859-863

TOPIC TAGS: vehicle engine, engine component, metalworking machinery, metal machining, industrial automation

ABSTRACT: The article discusses the complications which arise in the automatic production of the cylinder heads of motor vehicle engines and the more rigorous requirements which must be met in the designing of production line tools to make them. Examples of such designs are presented and recommendations are made. Orig. art. has: 9 figures. [JPRS]

SUB CODE: 13, 21 / SUBM DATE: none

Card 1/1 (1 c)

UDC: 621.002.5:338.2: 621.9.02

0913

0568

MIHAI, F.; ROCH, B.

The calcium and strontium compounds of dilituric acid. Studii chim  
Timisoara 7 no.3/4:303-311 Jl-D '60. (EEAI 10:9/10)

(Calcium) (Strontium) (Dilituric acid)

KOCH, M., MUDr.

10 Years of the polyclinic in Jihlava. Česk. zdrav. 13 no.6:  
310-312 Je 65.

1. Obvodního ustanu národního zdraví, Jihlava.

ROCH, M.

In memory of Doctor Bohumil Vesely. Lek.listy 5 no.22:684 15 Nov 50.  
(CLML 20:5)

*JROCH M.*

ROCH, M.

In memory of Bohumil Vesely. Cas. lek. cesk. 89 no. 46:1305-  
1306 17 Nov 50. (CIML 20:4)

ROCH, M., MUDr.

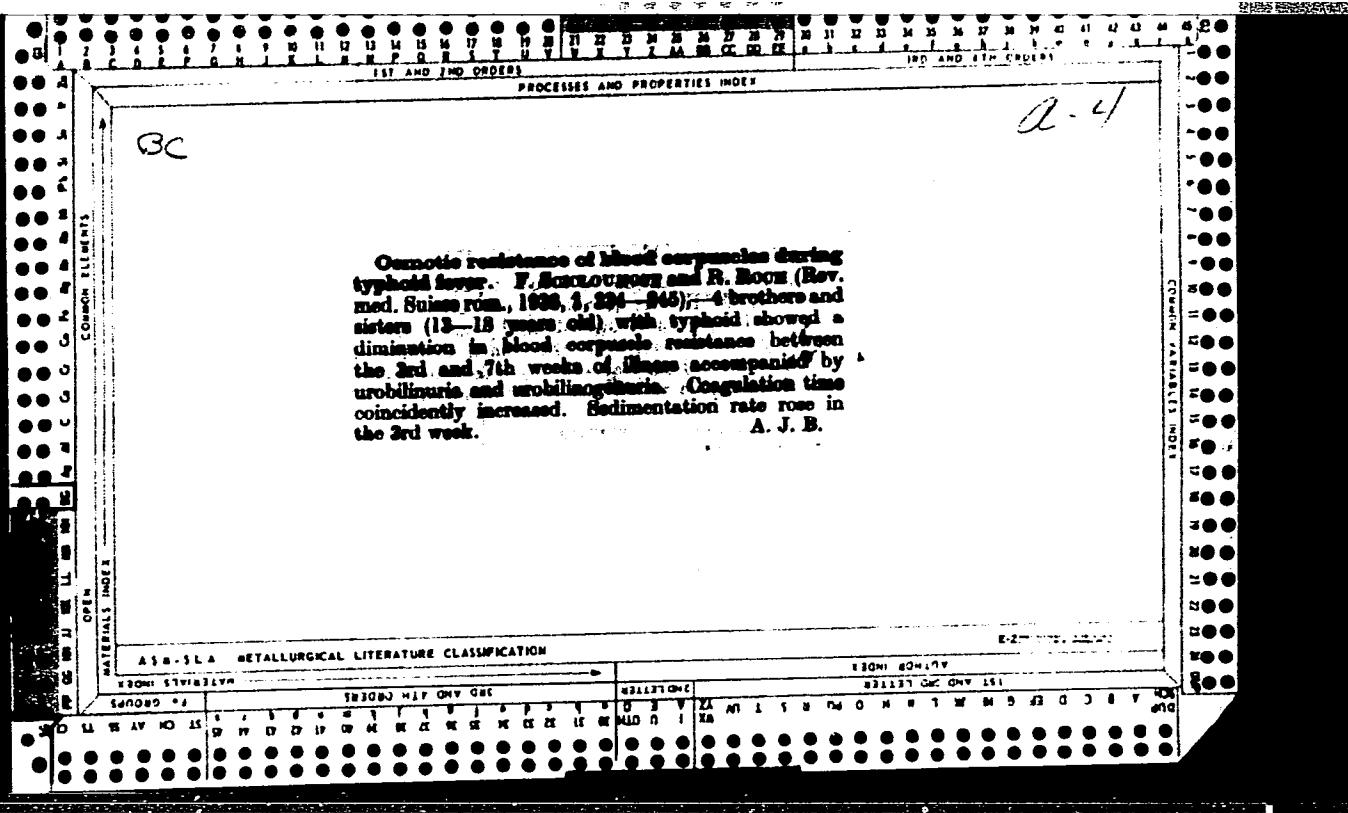
Twenty years of public health service in the Jihlava area.  
Cesk. zdrav. 13 no.11:573-576 N '65.

1. Obvodni ustav narodniho zdravi Jihlava.

Roch, M., MUDr.

On a contribution to the subject "organization of health care"  
in intermediate health schools. Cesk. zdrav. 10 no.4:198-200  
'62.

1. Reditel OUNZ v Jihlave.  
(HEALTH EDUCATION)



ROCHACZ, K.

Water shortages; damages caused by mining and their prevention. p. 199

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland.  
Vol. 33, no. 5, May 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 9, September 1959  
Uncl.

RCCMAGZ, V.

Water-supply and canalization system, water reservoirs and water pumping stations on mining areas. p. 284

SO: East European Accessions List (EAL). L.C. No. 11 Nov. 1955 uncl.

ROCHACZ, K.

(GAZ, WODA I TECHNIKA SANITARNA, Vol. 27, No. 8, Aug. 1953, Warsaw, Poland)

"Water pipes in mountains." p. 226

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, L.C., Vol. 3, No. 4, APRIL 1954

L 6988-66

ACC NR: AP5020243

SOURCE CODE: UR/0188/65/000/004/0078/0082

16  
B

AUTHOR: Rocharov, V. G.; Levshin, L. V.

ORG: Department of Optics (Kafedra optiki)

TITLE: The influence of molecular interaction on optical properties of the Rhoda-mine 6-G molecule in binary solutions

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1965,  
78-82

TOPIC TAGS: molecular interaction, dye chemical, organic solvent, alcohol, carbon-tetrachloride, band spectrum, solution concentration

ABSTRACT: In concentrated solution many organic substances, especially dyes, associate with molecules of the solvent. This is usually accompanied by a change in the absorption spectra and it initiates a diminishing of the luminescence of the dye. The latter depends on the nature of the solution used. To study the intermolecular interaction effects on Rhodamine 6-G (a brilliant yellowish red basic dye used in coloring paper) measurements were carried out with both polarized and unpolarized

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090-1000

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ACC NR: AP5020243

binary solutions. Solvents were the n- and iso- alcohols from methyl to amyl with carbontetrachloride making up the unpolarized solution, and methyl, ethyl, and isopropyl alcohol in aqueous solution comprising the polarized one. A table is given showing spectra absorption changes with various compositions. The change with methyl alcohol in carbontetrachloride as the solvent proved negligibly small. Graphs are also given contrasting the band absorption of the monomer with its corresponding associates. The strong changes in the fundamental band are caused by intermolecular association of the monomer. It is concluded that the significant changes in spectra absorption with concentration is due primarily to the change of band absorption of the monomer. This in its turn extinguishes the luminescence in this medium.

Orig. art. has: 1 chart and 2 figures.

SUB CODE: OP,GC/ SUBM DATE: 24May64/ ORIG REF: 004/ OTH REF: 000

Card 2/2 *rds*

ROCHAROV, Yu., arkitektor

Inside housing developments. Za bezop.dvizh. no.1:6-7 Ja '60.  
(MIRA 13:5)

(City traffic)

Rochas, Paul

Problems in the colorimetric analysis of fabrics treated with optical-bleaching agents. J. Plnte and Paul Rochas. *Mellin's Texilber.* 36, 362-7 (1955).—A modified photo-colorimeter is diagrammed. Optical measurements are made of reflected plus fluorescent light, reflected light only, and fluorescent light only. Spectral curves obtained in the analysis of various materials are shown. M. Dolinsky

ROCKENBAUER, Pal

Kossuth-prize winner biologists in the Kossuth Club.  
Elovilag 6 no.1:61-62 Ja-F '61.

1. Budapesti Biológiai Szakosztály titkara.

Application of the method of selective solution, by means of various organic solvents, to the direct analysis of lubricating oils. Concentration of the sulfur compounds contained in a Rumanian oil called "RRO". Emile Andre and Jean Roche. *Bull. Soc. Chim.* 51, 5, 1218-27 (1938). The direct analysis of a Rumanian mineral oil called "P.R.O." was undertaken in an attempt to ext. the active hydrocarbons responsible for rotating the plane of polarized light 2°-20° to the right. By extn. with  $\text{Me}_3\text{O}$ ,  $\text{C}_6\text{H}_6$  and  $\text{Me}_2\text{O}$  it was possible to conc. a mixt. of hydrocarbons of relatively low mol. wt. but highly active. They composed of  $\text{C}_6\text{H}_6$  and  $\text{C}_7\text{H}_8$  and it was not known whether a quaternary or tertiary compds. was present. Emilia E. Arambal

Proximate analysis of some mineral lubricating oils.  
Solvent concentration of the sulfur compounds in a Rumanian oil. Emile André and Jean Bigot. *Biochimica et Biophysica Acta* 1971, 26, 319-51 (1971).  
*Analyses et Syntheses* 1971, 13, 319-51 (1971).  
Extn. of 31. Rumanian oil, d<sup>25</sup> 0.834, with acetone  
and extn. of this ext. with EtOH yields a most-sol. fraction  
of 84 g., d. 1.020. Extn. of this with MeOH yields a most  
sol. fraction of 9 g., d. 1.050, mol. wt. 296, contg. 3.0% O  
and 1.5% S, and least-sol. hydrocarbon fractions of d  
1.000-0.974, mol. wt. 296. The *d<sub>25</sub>* of S is improved by  
decompn. of the Eschka mixt. in a nest of 3 crucibles of  
which the middle one is inverted. H. A. Beatty

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S/089/60/009/005/002/020  
B006/B070

21/1200  
AUTHORS:

Trlifay, L., Ruec, J.  
Rochev, V.

TITLE: Replacement of a Block in a Two-dimensional Quadratic  
Lattice

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 5, pp. 366 - 374

TEXT: A method was elaborated by A. D. Galanin, S. M. Feynberg and others for the calculation of the critical and boundary conditions in heterogeneous thermal reactors. A number of problems have been treated by this method, including the one considered here, namely, the replacement of a block in a lumped lattice by one with other properties. For example, this problem has already been solved for a three-dimensional array of point blocks (Ref. 3), and an infinite cylindrical reactor with a quadratic lattice (Ref. 4). In the present paper, a two-dimensional infinite quadratic lattice is considered, which is made up of infinitely long filament-like blocks. Just like Galanin (Ref. 1), the present authors assume that the finite nature of the transverse dimensions can be taken into account by introducing effective constants. It is further

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Replacement of a Block in a Two-dimensional S/089/60/009/005/002/020  
Quadratic Lattice B006/B070

assumed that the slowing down and diffusion of thermal neutrons can be satisfactorily described in diffusion-age approximation, and that the absorption of resonance neutrons in the blocks is negligible. For the determination of neutron density distribution in this approximation, it suffices to know the thermal neutron distribution in the lattice on the surface of the block. At first, the forms of the general solutions of the density distribution functions are given for the case of an active, a critical, and an inactive medium. Subsequently, it is shown how the method of Feynberg must be modified for a two-dimensional inactive medium. A cylindrical neutron-absorbing block located in an infinite, homogeneous, and inactive medium is considered. The solution obtained for this case is analogous to that found by Galanin (Ref.1). This method is not applicable to an active medium; for this, a method (Ref.2) taken from quantum field theory is modified. Finally, the case of an infinite critical lattice is considered as a limiting case of the two above cases. The authors proceed from a formulation for the thermal neutron density in a homogeneous medium in diffusion approximation. It is found that before the formulas derived can be of practical use, long numerical calculations are necessary. A. D. Galanin is thanked for discussions.

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Replacement of a Block in a Two-dimensional Quadratic Lattice S/089/60/009/005/002/020  
B006/B070

There are 1 figure and 5 references: 2 Soviet, 2 US, and 1 Swiss.

ASSOCIATION: Institut yadernykh issledovanii ChSANS, Praga (Institute  
of Nuclear Research of ChSANS, Prague)

SUBMITTED: January 28, 1960

Card 3/3

*Revised 10/10/94 A.G.*

ANDON'YEV, V.L.; BAUM, V.A.; BAUMGARTEN, N.K.; BEREZIN, V.D.; BIRYUKOV, I.K.;  
BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVY, G.A.; BULEV, M.Z.; BURAKOV,  
N.A.; VERTSAYZER, B.A.; VOLK, G.M.; VORMAN, B.A.; VOSHCHININ, A.P.;  
GALAKTIONOV, V.D., kand. tekhn. nauk; GENKIN, Ye.M.; GIL'DEVELAT,  
Ya.B., kand. tekhn. nauk; GINZBURG, M.M.; GLUBOV, P.S.; GODES, E.G.;  
GORBACHEV, V.N.; GRZHIB, B.V.; GIREKULOV, L.F., kand. s.-kh. nauk;  
GRODZENSKAYA, I.Ya.; DANILOV, A.C.; DMITRIYEV, I.G.; DMITRIYENKO,  
Yu.D.; DOBROKHOTOV, D.D.; DUBININ, L.G.; DUNDUKOV, M.D.; ZHOLIK,  
A.P.; ZENKEVICH, D.K.; ZIMAREV, Ye.V.; ZIMASKOV, S.V.; ZUBRIK, E.M.;  
KARANOV, I.F.; KNYAZEV, S.N.; KOLEGAYEV, N.M.; KOMAREVSKIY, V.T.;  
KOSENKO, V.P.; KORENSTOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.;  
KRIVSKIY, M.N.; KUZNETSOV, A.Ya.; LAGARIKOV, N.I.; LGALOV, V.G.;  
LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSKIEVICH, K.F.; MEL'NICHENKO,  
K.I.; MENDELEVICH, I.R.; MIKHAYLOV, A.V., kand. tekhn. nauk;  
MUSIYEEVA, R.N.; NATANSON, A.V.; NEKIFEN, M.V.; OVBES, I.S.;  
OGUL'NIK, G.R.; OSIPOV, A.D.; OSMER, N.A.; PETROV, V.I.; PERYSHKIN,  
G.A., prof.; P'YANKOVA, Ye.V.; RAPOPORT, Ya.D.; REMEZOV, N.P.;  
ROZANOV, M.P., kand. biol. nauk; ROGACHEV, A.G.; RUBINCHIK, A.M.;  
RYBCHEVSKIY, V.S.; SADCHIKOV, A.T.; SEMENTSOV, V.A.; SIDENKO, P.M.;  
SINYAVSKAYA, V.T.; SITAROVA, M.N.; SOSNOVIKOV, K.S.; STAVITSKIY,  
Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRTSOVA,  
Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.;  
TSISHEVSKIY, P.M.; CHERKASOV, M.I.; CHERNYSHOV, A.A.; CHUSOVITIN,  
N.A.; SHESTOPAL, A.O.; SHELEHTER, P.A.; SHISHKO, G.A.; SHCHERBINA,  
I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,

(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 2.  
Ye.A., retsenzent, red.; AKHUTIN, A.N., retsenzent, red.; BALASHOV,  
Yu.S., retsenzent, red.; BARABANOV, V.A., retsenzent, red.; BATUHEV,  
P.D., retsenzent, red.; BORODIN, P.V., kand. tekhn. nauk, retsenzent,  
red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsenzent, red.;  
GRIGOR'YEV, V.M., kand. tekhn. nauk, retsenzent, red.; GUBIN, M.F.,  
retsenzent, red.; GUDAYEV, I.N., retsenzent, red.; YERMOLOV, A.I.,  
retsenzent, red.; KARAULOV, B.F., retsenzent,  
kand. tekhn. nauk, retsenzent, red.; LIKIN,  
red.; KRITSKIY, S.N., doktor tekhn. nauk, retsenzent, red.; LIKIN,  
V.V., retsenzent, red.; LUKIN, V.Y., retsenzent, red.; LIUSKIN, Z.D.,  
retsenzent, red.; MATRIROSOV, A.Kh., retsenzent, red.; MENDELEYEV,  
D.M., retsenzent, red.; MENKEL', M.F., doktor tekhn. nauk, retsenzent,  
red.; OBEEZKOV, S.S., retsenzent, red.; PETRASHEN', P.N., retsenzent,  
red.; POLYAKOV, L.M., retsenzent, red.; RUMYANTSEV, A.M., retsenzent,  
red.; RYABCHIKOV, Ye.I., retsenzent, red.; STASENKOVA, N.G., retsen-  
zent, red.; TAKANAYEV, P.F., retsenzent, red.; TARANOVSKIY, S.V.,  
prof., doktor tekhn. nauk, retsenzent, red.; TIZDEL', R.E., retsen-  
zent, red.; SHEDYAKOV, M.N.,  
retsenzent, red.; SHMAKOV, M.I., retsenzent, red.; ZHUK, S.Ya.  
[deceased], akademik, glavnnyy red.; RIBSO, G.A., kand. tekhn. nauk,  
red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.;  
ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.;  
LIKACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.; RAZIN,  
MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; FREYGOFER,  
N.V., red.; SOBOLEV, V.P., red.; FERINGER, B.P., red.; FREYGOFER,  
(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 3.  
Ye.F., red.; TSYPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N.,  
tekhn. red.; GENKIN, Ye.M., tekhn. red.; KACHEROVSKIY, N.V., tekhn.  
red.

[Volga-Don; technical account of the construction of the V.I. Lenin  
Volga-Don Navigation Canal, the Tsimlyansk Hydroelectric Center,  
and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-  
stve Volgo-Donskogo sudokhodnogo kanala imeni V.I. Lenina, TSim-  
lianskogo gidrouzla i orositel'nykh sooruzhenii, 1949-1952; v piati  
tomakh. Moskva, Gos. energ. izd-vo. Vol.1. [General structural  
descriptions] Obshchee opisanie sooruzhenii. Glav. red. S.IA. Zhuk.  
Red. toma M.M. Grishin. 1957. 319 p. Vol.2. [Organization of con-  
struction. Specialized operations in hydraulic engineering] Orga-  
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(Continued on next card)

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Glav. red. S.IA. Zhuk. Red. toma I.N. Kostrov. 1958. 319 p.  
(MIRA 11:9)

1. Russia (1923- U.S.S.R.) Ministerstvo elektrostantsii. Byuro  
tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-kor-  
respondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy  
chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin,  
Razin).

(Volga Don Canal--Hydraulic engineering)